independent of the first spring, arranged in parallel, a damper arranged between the second spring and the first mass wherein a damping function of the damper is continuously variable based on an application of variable voltage to an electrorheological or magnetorheological fluid contained therein so as to provide a continuously variable spring stiffness.

Claim 15 (new). Spring/mass vibratory force coupler of claim 9, wherein when the damping function of the damper is turned off, the second spring couples the masses without any damping function.

REMARKS

This is in response to the official action dated November 22, 2002. Reconsideration in view of the following is respectfully requested.

The examiner cites U.S. Patent No. 5052662 to Doi. Doi teaches a mounting arrangement including elastomeric bodies 16, 40b, 24, which resist against deformation. It is noted that these are specially formed to incorporate the electrorheological fluid, and to act themselves as dissipators. That is, being elastomeric in nature, there is an inherent damping effect, with or without the fluid contained therein. So, even if the fluid to the elastomeric chambers is cut off, the damping effect is not completely cut off. Applicant's new claim 15 has as a limitation that, when the damping function of the damper is turned off (i.e. with sufficiently high viscosity imparted to the fluid in the damper), then the damping function as a whole, to the second spring/damper combination is turned off (i.e. rigid coupling of the masses is possible). There is no residual damping as in Doi, and the spring operates as if without a damper. This is supported in the specification at page 8, end of first paragraph. As Doi does not contemplate an arrangement wherein completely rigid, non-damped coupling is possible, it can not render claim 15 obvious.

As to independent claim 9, the claim has been amended to read that the damping function is *continuously* variable, resulting in a *continuously* variable spring stiffness (see page 3, first line). Doi states that the damper may be varied. However, there is no basis for continuous variation. This is because Doi operates by applying voltages across several 'gates' 32, 44. The voltage increases the viscosity of the fluid such that it effectively closes the gate. Although the damping function is varied in that it can change to 'discrete values' based on which pair of electrodes has current applied thereto, it is not continuously variable. As there is no suggestion in Doi to provide a continuously variable damper, amended claim 9 *et seq.* are not anticipated nor obvious.

Wherefore, allowance of all pending claims is earnestly solicited.

Respectfully submitted,

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MARKED-UP CLAIMS

Claim 9. (~~three~~ four times amended). Spring/mass vibratory force coupler with variable damping and variable spring stiffness for coupling masses to a reference mass, comprising a first mass coupled to a second mass via a first spring and a second spring, independent of the first spring, arranged in parallel, a damper arranged between the second spring and the first mass wherein a damping function of the damper ~~may be varied~~is continuously variable based on an application of ~~a~~ variable voltage to an electrorheological or magnetorheological fluid contained therein so as to provide a continuously variable spring stiffness.

Claim 15 (new). Spring/mass vibratory force coupler of claim 9, wherein when the damping function of the damper is turned off, the second spring couples the masses without any damping function.